

**Amendments to the Specification**

Please replace the paragraph starting on page 1, line 21 with the following rewritten paragraph:

A1  
"Global Registry Object for Mapping Registry Functions and Registry Equivalent Functions Across Multiple Operating Systems in a Cross-platform Program," having serial no. 09/280,371 and attorney docket no. AT9-98-853;

Please replace the paragraph starting on page 3, line 20 with the following rewritten paragraph:

A2  
Most operating systems, such as MICROSOFT WINDOWS\*\*, DOS, AIX;\*\* etc., provide for environment variables. Environment variables are used to assign a path to a variable, modify the defaults of various commands, and are used in batch files. The PATH environmental variable indicates which directories the operating system will search for a command. The operating system will always first search in the current directory on the current drive and will then search in the paths listed in the PATH environmental variable if the current directory does not include the attempted command. Other standard environment variables include TMP or TEMP which provides a directory for temporary files, "WINDIR" which specifies the ~~Windows~~ WINDOWS\*\* or operating system's directory; COPYCMD which specifies whether the copy and move commands should prompt for confirmation before overwriting, etc. An environmental variable is defined with a command such as SET envirovariable = string, where envirovariable is the environmental variable name and string is a series of characters to assign to the variable.

Please replace the paragraph starting on page 4, line 5 with the following rewritten paragraph:

3  
Installation programs typically access the environment variables to determine the location of the temporary files to use during installation and the location of the ~~Windows~~ WINDOWS\*\* directory, which includes various configuration files that the installation program modifies to register the program components being installed. Further, the installation program may want to add the directory of the installed program to the PATH environmental variable to allow the installed program to be executed from any directory.

Please replace the paragraph starting on page 4, line 12 with the following rewritten paragraph:

4  
Environment variables are stored in memory allocated by a configuration file, such as "command.com." ~~Windows~~ WINDOWS\*\* installation programs, through an Application Program Interface (API) call, may access environment variables from their location in memory. However, programs written in certain cross-platform computer languages, such as Java, cannot access the environment variables. This limitation prevents Java implemented programs from making effective use of environment variables, such as the temporary files and the location of the operating system directory and configuration files, e.g., c:/windows. Thus, there is a need in the art to provide programs such as Java access to environment variables.

Please replace the paragraph starting on page 10, line 12 with the following rewritten paragraph:

5  
The installer tool kit of the preferred embodiment of this invention supports the Windows 32 operating systems including ~~Windows~~ WINDOWS\*\* 95, ~~Windows~~ WINDOWS\*\* 98 and NT 4.0. It also supports OS/2 ~~Warp~~ WARP\*\* 4.0, OS390, AIX\*\* 4.1 and higher versions,

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Solaris SOLARIS\*\* and ~~Linux~~ LINUX\*\* 4.2. Although the structure of the preferred embodiment enables support for any given operating system or environment, future embodiments or further enhancements to the present preferred embodiment will enable full support for other operating systems such as NT 5.0, HP-UX\*\*, AS/400\*\*, or any other operating system. The installer program 17 or tool kit may be written in a script based object oriented programming language, such as Java. The developer may utilize the programming language commands to develop an install program according to the developer's specifications. In preferred embodiments, the developer may determine the program flow and the display of specific graphical user interface (GUI) panels. Furthermore, the tool kit enables a developer to perform functions on files and directories, e.g., to copy, read, create, modify, version and to batch files. With respect to registry functions, the tool kit enables a developer to write an install program that can read, create, modify, delete, and enumerate registries for the Windows operating system which is the only operating system that has a registry object. These same functions are provided for all other operating systems that do not have a registry, but do have registry equivalent functionality.

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Please replace the paragraph starting on page 13, line 14 with the following rewritten paragraph:

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In most operating systems 16, e.g., WINDOWS\*\*, ~~Unix~~ UNIX\*\*, etc., the environment variables are generated as an output ASCII text data stream. Each environmental variable is outputted to one or more lines of the ASCII text data stream. This output data stream is captured and read to obtain the content of the variables. The text includes the name of the environment variable, followed by an equal sign, and then the value for the variable. Each environment variable is defined on a separate line of the data stream from other variables. Block 424 in FIG. 3b begins a loop of steps to perform for each line *i* of text from the environmental variable file written into the buffer. The loop begins (at block 426) with the processor 11 determining whether there is an equal (=) sign in line *i*. If so, the processor determines (at block 428) the

AS location of the equal (=) sign. The variable name  $n$  is set (at block 430) to the string extending from the beginning of the current line  $i$  to the location of the equal (=) sign. The variable value  $v$  is set (at block 432) to the string from the right of the location of the equal (=) sign in line  $i$  to the end of line  $i$ . The content of the variables  $n$  and  $v$  are added (at block 434) to the envVars object. Thus, the envVars data object maintains a name/value pair of data for each environmental variable. At block 436, the processor 11 proceeds back to block 424 to consider the next  $(i + 1)$ th line in the buffer.

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Please replace the paragraph starting on page 17, line 21 with the following rewritten paragraph:

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